## WHAT IS CLAIMED IS:

1	1. In a frame-switched network apparatus, a method of sending frames
2	from a sender to a receiver over a possibly unreliable channel, the method comprising the
3	steps of:
4	forming a frame at the sender, wherein the frame contains data to be
5	transmitted to the receiver;
6	including a frame identifier in the frame selected from a set of frame
7	identifiers;
8	retaining a copy of the frame at the sender;
9	sending the frame from the sender to the receiver over the channel,
10	independent of the availability of the receiver;
11	upon receipt of a frame at the receiver, identifying a frame identifier for
12	the received frame;
13	detecting, from the frame identifier, if a prior frame was missed;
14	if a missed prior frame is detected in the step of detecting, sending a
15	negative acknowledgment (nack) from the receiver to the sender, the nack including an
16	indication of the missed prior frame;
17	if a nack is received at the sender, determining the frame identifier of the
18	missed prior frame and resending the missed prior frame if a copy of the missed prior
19	frame is still retained at the sender; and
20	releasing the retained copy of the transmitted frame when a storage
21	constraint is reached.
1	2. The method of claim 1, wherein the sender transmits the transmitted
2	frame to more than one receiver.
1	3. The method of claim 1, wherein the set of frame identifiers is a set of
2	sequential integers and the frame identifiers are used in sequence and transmitted in
3	sequential frame order.
1	4. The method of claim 3, wherein the indication of the missed prior
2	frame is a nack containing a frame identifier and a missing frame count that together
3	identify a sequence of one or more frames that includes the missed prior frame.

1	5. The method of claim 1, wherein the indication of the missed prior
2	frame is a nack containing a frame identifier and a missing frame count that together
3	identify one or more frames including the missed prior frame.
1	6. The method of claim 1, further comprising the steps of:
2	identifying, at the receiver, when frames are received out of order; and
3	when a frame is received out of order, buffering the out of order frame in a
4	receiver buffer for a receive buffer period, until preceding frames are received or the
5	receive buffer period expires.
1	7. The method of claim 1, further comprising a step of sending a reminder
2	frame from the sender to the receiver, to allow the receiver to detect a missed prior frame
3	missing from an end of a frame sequence.
1	8. The method of claim 1, further comprising a step of including nack
2	indications in frames containing data transmitted from the receiver to the sender when the
3	receiver has data to send to the sender and has detected at least one missing prior frame.
1	9. The method of claim 1, wherein the step of sending a nack comprises a
2	step of sending the nack at least two times from the receiver to the sender.
1	10. The method of claim 9, further comprising the steps of:
2	detecting when multiple nacks are sent for a single missed prior frame; and
3	sending only one retransmitted frame for each missed prior frame multiply
4	nacked.
1	11. The method of claim 9, further comprising the steps of:
2	delaying a second nack from the receiver for a response period, wherein
3	the response period is related to the time delay expected between sending the first nack
4	and expected receipt of a retransmitted frame; and
5	retransmitting the missed prior frame once for each nack received.
. 1	12. The method of claim 11, wherein the response period is a
2	predetermined time.
1	13. The method of claim 11, wherein the response period is a dynamically
2	determined time determined from measured frame travel times.

1	14. The method of claim 1, wherein the channel is a bidirectional channel
2	and each node on the channel sends and receives frames.
1	15. The method of claim 1, further comprising the steps of:
2	assigning a priority to each frame being transmitted, the priority selected
3	from a set of priorities; and
.4	handling frames of differing priorities with differing logical channels.
1	16. The method of claim 1, wherein the channel is part of a network
2	connecting a plurality of senders and a plurality of receivers, the method further
3	comprising the steps of:
4	including a source identifier and a destination identifier in each frame
5	transmitted from a source sender; and
6	selectively processing, at a destination receiver, those frames having a
7	destination identifier identifying the destination receiver.
1	17. The method of claim 16, wherein the destination identifier identifies a
2	plurality of broadcast receivers, the method further comprising a step of broadcasting a
3	frame sent from the sender by including, in the frame, the destination identifier
4	identifying the plurality of broadcast receivers.
1	18. The method of claim 1, wherein the channel is one of a telephone
2	wire, a cable, a radio frequency link or a power wire.
1	19. The method of claim 1, wherein the indication of the missed prior
2	frame includes a frame identifier of a first missed frame and a number of sequential
3	missed frames following the first missed frame.
1	20. The method of claim 1, wherein the frame identifiers are reusable
2	frame identifiers.
1	21. The method of claim 1, wherein the step of storing contents of the
2	frame is a step of storing contents of the frame for a buffer period.
1	22. The method of claim 21, further comprising a step of tracking a buffer
2	period for each frame.

1	23. The method of claim 1, wherein the storage constraint is either a time
2	constraint, where frames are released after a buffer period, or a storage constraint, where
3	an oldest frame is released when a new frame is to be stored in the frame buffer and the
4	frame buffer is full.
1	24. In a frame-switched network apparatus, a method of sending frames
2	from a sender to a receiver over a possibly unreliable channel, the method comprising the
3	steps of:
4	forming a frame at the sender, wherein the frame contains data to be
5	transmitted to the receiver;
6	including a frame identifier in the frame selected from a set of frame
7	identifiers;
8	retaining a copy of the frame at the sender;
9	sending the frame from the sender to the receiver over the channel,
10	independent of the availability of the receiver;
11	upon receipt of a frame at the receiver, identifying a frame identifier for
12	the received frame;
13	detecting, from the frame identifier, if a prior frame was received in error;
14	if an errored prior frame is detected in the step of detecting, sending a
15	negative acknowledgment (nack) from the receiver to the sender, the nack including an
16	indication of the errored prior frame;
17	if a nack is received at the sender, determining the frame identifier of the
18	errored prior frame and resending the errored prior frame if a copy of the errored prior
19	frame is still retained at the sender; and
20	releasing the retained copy of the transmitted frame when a storage constraint is
21	reached.